

# **MOUNTAIN VIEW WATER REUSE RULES AND REGULATIONS**

**JANUARY 2010**

# Mountain View Water Reuse Rules and Regulations

January 2010

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## **INTRODUCTION**

### **Purpose**

The purpose of this document is to provide customers of the City of Mountain View Water Reuse Program guidelines for operating and maintaining a recycled water system. The document covers requirements for both new and existing sites using recycled water but does not supersede any codes, laws, statutes or regulations governing recycled water use.

### **Background**

This document draws on a number of references concerning the use of recycled water. Of primary importance are the Guidelines for Distribution of Nonpotable Water developed by the California-Nevada Section of the American Water Works Association (AWWA) and the regulations regarding the use of recycled water ("Title 22") promulgated by the State of California Department of Public Health (DPH). It also draws on regulations contained in two San Francisco Bay Regional Water Quality Control Board permits for water reuse (Order No. 93-160 and Order No. 96-011). Currently, the City of Mountain View is governed by Order No. 93-160 but may apply for coverage under Order No. 96-011 in the future. To aid in understanding the terminology in this document, a list of definitions is provided in **Appendix A**. Governing agencies are shown in **Appendix B**, and applicable regulations and guidelines are shown in **Appendix C**.

These Rules and Regulations have been compiled specifically for the customers of the City's Reuse Program, and this document takes precedence over general guidelines (including AWWA guidance documents) where differences are noted. Since codes, laws, statutes and regulations can change without prior approval or knowledge of the City, the City does not assume any liability for errors in this document. Within the City service area, various customers or individual facilities may have site-specific requirements, which are usually set forth in the customer's Recycled Water Use Permit.

It is the responsibility of the customer to check with the City before initiating any changes to their on-site recycled water system. Interested parties may contact the City for copies of documents referenced in the Rules and Regulations.

### **Severability**

If any section, subsection, clause or phrase of these Rules and Regulations is for any reason held to be invalid, the remaining portions of these Rules and Regulations shall remain in effect.

## **1. PLANNING FOR RECYCLED WATER SERVICE**

### **Determination to Use Recycled Water**

In accordance with City of Mountain View Municipal Code, Chapter 35, Article V, Recycled Water for Irrigation, all irrigation systems for new landscaped areas shall be designed and installed to allow for the current and future use of recycled water. The City may grant an exemption to a site if recycled water will not be available to serve the project in the foreseeable future. All irrigation systems must be metered separately from the potable water supply system and must have no on-site cross-connections to the potable water supply system.

### **Protection of Public Health**

The City reserves the right to take any action necessary, with respect to the operation of the customer's recycled water system, to safeguard the public health. If real or potential hazards are evidenced any time during construction or operation of the recycled water system, the City reserves the right and has the authority to terminate recycled water service immediately, without notice. These hazards include, but are not limited to, cross-connections with the potable system; improper tagging, signing or marking; or unapproved/prohibited uses. The City may elect to temporarily replace the recycled water supply with potable water only after the customer's recycled water system has been disinfected and approval has been granted by the City. All modifications required to replace the recycled water supply with potable water will be at the customer's expense.

### **Approved Uses of Recycled Water**

Sites may use recycled water for a variety of uses approved by DPH. These include, but are not limited to: landscape irrigation, agricultural irrigation, construction water, water for industrial purposes, impoundments (fountains), and indoor toilet and urinal flushing. Each user of recycled water must have a permit from the City prior to receiving recycled water. The State of California regulates the use of recycled water, as directed under Title 22. Local authorities, at their discretion, can require or specify what sites and/or uses of recycled water are allowed in their service area, so long as the direction complies with State requirements. Sites may use recycled water only for those uses approved by the City and DPH.

Irrigation systems must be designed and operated to minimize overspray, runoff and ponding.

Delivery of chemical fertilizers or pesticides to landscaped areas by means of injection into the recycled water system is prohibited by the City.

### **Recycled Water Use Permit**

Every customer must obtain a Recycled Water Use Permit from the City prior to receiving recycled water. Permits will only be issued after the proposed site has met all of the permit conditions. Typically, these requirements include construction, inspection, cross-connection certification, Site Supervisor training and a schedule of the hours that recycled water can be used. There is no fee for this permit. Permits for construction or other activities are subject to normal City approval processes. Following permit issuance, a site may receive recycled water in accordance with the requirements of the permit and the City Rules and Regulations. The City may revoke the permit at any time.

If the on-site recycled water system is found to be in violation of the Rules and Regulations, the City will direct the customer to mitigate these violations. A site inspection will be scheduled after a reasonable period to ensure compliance. Failure to comply will result in termination of recycled water service.

### **Local Authority**

The City is the local authority having the responsibility for implementation and enforcement of the Rules and Regulations for the end use of recycled water in the City of Mountain View. Various regulations for recycled water use are outlined in the resolutions, policies and ordinances of the City.

### **Procedures for Obtaining Recycled Water Service**

The procedures for obtaining recycled water service are listed in **Appendix D** and an application for recycled water service is included in **Appendix E**. The procedures are slightly different depending on whether the service is for a new facility or for an existing facility.

## **2. DESIGN, INSTALLATION AND INSPECTION**

### **Design Requirements at the Service Connection**

**Exceptions for Existing Irrigation Systems.** With the exception of pipe identification and pipe separation, facilities where the existing buried piping system is converted from potable to recycled water must meet the same requirements as new facilities. However, any new buried piping added to existing piping at a retrofitted site must meet the identification and separation requirements for new systems. In addition, any existing piping uncovered for any reason during construction must be marked according to pipe identification requirements to the extent feasible.

**Pressure.** Designers should contact the City to determine the pressure available at their specific point of connection. The City distribution system provides recycled water to customers at pressures that range from 65 psi to 100 psi.

**Required Pressure Regulator.** Unless otherwise directed by the City, all recycled water services must be equipped with a pressure regulating valve installed immediately downstream of the meter box. This device must be installed in an underground box. Prior to determining available pressure, designers should take into account the pressure losses incurred by these facilities.

**Reference:** *AWWA Guidelines, Section 5.1.*

**Point of Connection Location.** Designers must contact the City or consult development plans to verify the water meter location, the size of the lateral and meter available to serve their facility.

**Separation Requirements.** All recycled water laterals and meters must be separated by at least 10' horizontally from the nearest potable water facility, including pipelines, meters and hydrants. Designers should check to see that laterals and meters that serve their site meet these requirements. In the event that a horizontal separation less than 10' has been provided, designers must notify the City before proceeding with on-site system design.

**Reference:** *AWWA Guidelines, Section 5.6.*

**Backflow Prevention.** Since recycled water is not used for drinking purposes, backflow protection is not normally necessary on recycled water irrigation systems. However, the City must ensure that customers do not compromise the quality of the recycled water in the distribution system. Therefore, the City will require backflow protection on the customer's recycled water system if it is determined that there is a backflow hazard on-site which threatens the integrity of the distribution system.

In such cases, backflow prevention devices may be required at the recycled water service connection or at specific, on-site locations as appropriate to the situation. Backflow prevention assemblies must be shown on plans and be of a type approved by the DPH. It will be the responsibility of the customer to provide test reports for on-site backflow prevention devices to the City. Backflow devices at the service connection are monitored through the City backflow device test program.

Devices must be properly maintained, inspected and tested at least annually. Backflow prevention devices, when required on recycled water systems, must be conspicuously labeled. Test equipment must be dedicated for use with recycled water. Backflow testing equipment used for recycled water must not be reused on potable water systems.

**Reference:** *AWWA Guidelines, Section 5.3; Title 17 CCR, Article 2; Title 22 CCR, Article 4, Section 60310(h); City Municipal Code Chapter 35, Article II, Division 4, Backflow Prevention and Cross-Connection Control.*

### **Design Requirements for On-site Facilities**

**No Cross-Connections.** No cross-connections are allowed between the recycled water system and any other water system.

**Reference:** *Order 93-160, Section B; Title 22 CCR, Article 4, Section 60310(h); AWWA Guidelines, Section 5.9.6; City Municipal Code Chapter 35, Article II, Division 4, Backflow Prevention and Cross-Connection Control.*

**Horizontal Separation of Pipes.** A minimum horizontal separation of 10' between parallel, buried recycled and potable water pipelines should be maintained. If a 10' horizontal separation is not practical, a separation of a minimum of 4' may be allowed subject to special construction conditions. For a pipe separation between 4' and 10', one of the following requirements must be met:

- Solvent-welded PVC pipe on recycled water system
- Restrained joint PVC pipe for recycled or potable system
- Restrained joint ductile iron pipe on recycled water system
- Soldered copper pipe on recycled water system
- Sleeve for potable pipe
- Sleeve for recycled water pipe

It is recommended that designers maintain as much separation distance as possible between the potable and recycled water systems. Designers should also consult the City for specific design requirements. In no case is horizontal separation of less than 4' or construction in the same trench as potable facilities allowed.

**Reference:** *AWWA Guidelines, Section 5.6; Title 22, Section 64572.*

**Vertical Separation of Pipes at Crossings.** Where a buried constant pressure recycled water pipeline crosses a buried potable water pipeline, it must be located a minimum of 12" below the potable water pipeline. Constant pressure recycled water pipelines are allowed over potable water pipelines with a minimum of 12" vertical separation if a full standard pipe length is centered over the crossing, or the recycled water pipeline is installed in a pipe sleeve which extends a minimum of 10' on either side of the potable water piping.

**Reference:** *AWWA Guidelines, Section 5.6.*

**Pipe Class.** Constant pressure PVC piping 1.5" diameter and smaller shall be Schedule 40 or greater. Constant pressure PVC piping 2" and greater in diameter must be Class 200 or greater.

**Reference:** *From South Bay Program Rules and Regulations. No further reference obtained.*

**Depth of Cover.** Intermittent pressure piping in all sizes must have minimum depth of cover to finished grade of 12". In addition, constant pressure piping 2.5" and smaller in diameter shall have a minimum cover of 18". Constant pressure piping 3" and larger in diameter shall have a minimum cover of 24".

**Reference:** *From South Bay Program Rules and Regulations. No further reference obtained.*

**Thrust Blocking.** All recycled water piping other than PVC piping with solvent-welded joints must be protected against movement with thrust blocks or restrained joints or other approved methods conforming to the UPC Section 609.1.4.

**Prevent Overspray, Runoff and Ponding.** Irrigation systems must be designed and operated to prevent overspray, runoff and ponding, under all conditions.

**Reference:** *Order 93-160, Section B; AWWA Guidelines, Section 5.10.*

**Protection of Drinking Fountains and Outdoor Eating Areas.** Drinking fountains, outdoor eating areas and other similar facilities (e.g., snack bars) located within the approved use area must be protected from overspray or contact with recycled water.



Protection may be achieved by relocating the irrigation system or relocating or modifying the protected facilities.

**Reference:** *Order 93-160, Section B.*

**Protection of Wells.** Irrigation systems must be designed to prevent irrigation of recycled water within 50' of any domestic water supply well. In addition, recycled water impoundments must be located at least 100' (horizontal separation) from any domestic water supply well.

**Reference:** *Title 22 CCR, Section 60310.*

**Protection of Public Water Supply.** In order to protect the public drinking water system from accidental cross-connections, a reduced pressure (RP) principal backflow prevention device is required on all potable meters on premises where recycled water is present. The device must be installed as close as practicable to the downstream side of each potable water meter. All RP devices must be inspected and tested at least annually. The customer is responsible for coordinating the testing, unless otherwise required by the City. A person certified by AWWA for backflow prevention device testing must perform the testing. Test reports must be provided to the City. The customer must maintain records for a minimum of three (3) years.

**Reference:** *Order 93-160, Section B; Title 17 CCR, Section 7584; AWWA Guidelines, Section 5.3.*

**Hose Bibs.** Hose bibs are not allowed on the recycled water system. Quick-coupling valves specifically designed for recycled water use may be used for hose connections.

**Reference:** *Title 22 CCR, Section 60310; AWWA Guidelines, Section 5.9.7.*

### **Design Approval**

Before any new recycled water system is constructed or any existing recycled water system is modified, on-site recycled water system plans prepared by the Customer must be approved by the City. Approval will be contingent upon evidence that all applicable design requirements for a recycled water system are satisfied and that the system as designed can be operated in accordance with the City's Rules and Regulations. While the City reviews plans, the Customer is responsible for meeting all requirements, even those requirements not shown on the approved plans.

**Reference:** *Order 93-160, Findings 3.*

## **Information Required on Plans**

The following is a list of the basic information required on the plans for every on-site recycled water system. Note that compliance with every item on this list does not guarantee that the plans will be approved since regulations and policies may change and some sites may require additional provisions. For convenience, a copy of this list is provided in **Appendix F** in a checklist format.

Plans must include, but not be limited to, the following:

1. Site plan drawn to scale which clearly shows the boundaries of the intended use area, adjacent streets, locations of all major improvements on the site, all sources of water, water meters (recycled water and potable water), drinking fountains, and all public facilities supplied with recycled or potable water service. Public facilities include, but are not limited to, rest rooms, outdoor eating areas, snack bars, swimming pools, wading pools, decorative fountains and showers. If there are no public facilities located in the defined use area, then a note on the plans must indicate that no public facilities exist. Additionally, any wells, lakes, ponds, reservoirs or other water impoundments located on site or within 100' of the site must be shown on the site plan.
2. Piping plan which shows the complete potable and recycled water systems. All sources of recycled water and potable water must be indicated on the plan. The location and type of all existing and new backflow prevention devices, strainers, pressure regulating valves, master valves, any other valves and water meters (including size) must be clearly marked on the piping plan. For existing facilities converting to recycled water use, the piping plan must indicate which piping and other devices are existing and which piping and other devices will be installed as part of the retrofit work. The proper separation requirements between potable and recycled water lines (for new piping) must be indicated. The piping plan can be combined with the site plan if space permits.
3. Detailed drawings of areas where special installation or retrofit procedures are required, such as cutting and capping to separate potable and recycled systems, installation of backflow prevention devices, special construction where pipe separation criteria cannot be met and any other special elements.
4. Include an irrigation equipment legend which specifies all materials of construction for the system, including:
  - A pipe schedule listing pipe sizes, materials of construction and type of water conveyed by the piping.
  - A listing of valve types, including quick-coupling valves.

- Indication of purple-colored pipe with recycled water stenciling and quick-coupling valves with purple covers where recycled water is used.
5. All sites using recycled water must post clearly visible signs conforming to the requirements of these Rules and Regulations. **Show proposed sign locations on irrigation plans.**
    - For many sites, typical locations for signs are at the property line near crosswalks, at driveway entrances and at outdoor eating areas.
    - For streetscapes (parkways, frontage or back-up landscaping), place signs at street corners and entranceways, as appropriate, to notify passersby. In any case, signs must be placed no further than 1,000' apart.
    - For medians, a sign should be placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.
    - For decorative fountains, ponds and other water features, see the *Decorative Fountains, Ponds and Other Water Features* section for more information.
  6. Any other items required by the Design, Installation and Inspection Criteria section of these Rules and Regulations. Also show all details necessary to properly construct the system, including the details conforming to the requirements of the agency responsible for reviewing the plans.
  7. The information box (following Item 8) must be shown for each separately metered recycled water system. Place this information on the same sheet as the meter/ point of connection it pertains to. Fill out the 10 items, as applicable, but do not delete any items.
  8. Submit plans to City of Mountain View Public Works Land Development for review and approval.

## GENERAL SITE INFORMATION FOR RECYCLED WATER USE

1. LANDSCAPED RECYCLED WATER IRRIGATION USE AREA: *(square footage)*.
2. PUBLIC ACCESS TO SITE GROUNDS IS: *(indicate UNRESTRICTED or RESTRICTED)*.
3. OWNER: *(legal property owner's name)*.
4. PROPERTY MANAGER CONTACT: *(name, title and telephone number)*.
5. TENANT(S): *(name(s) and telephone number(s); if not applicable, state NOT APPLICABLE)*.
6. ON-SITE WELL LOCATIONS: *(for example, ONE; if none, state NONE)*.
7. WELLS ON ADJACENT SITES LOCATED WITHIN 50' OF RECYCLED WATER APPROVED USE AREA OR WITHIN 100' OF ANY RECYCLED WATER IMPOUNDMENT: *(for example, ONE; if none, state NONE)*.
8. OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER APPROVED USE AREA: *(for example, ONE; if none, state NONE)*.
9. OUTDOOR EATING AREA(S) IN/NEAR THE RECYCLED WATER APPROVED USE AREA: *(for example, ONE; if none, state NONE)*.
10. WATER FEATURES ON-SITE: *(examples below; if none, state NONE)*.

<u>Number</u>	<u>Type</u>	<u>Water Source</u>
One	fountain	recycled
One	pond	potable

Preparation of On-site Recycled Water Service Plans does not exempt the customer from submitting other on-site improvement plans normally required by the City of Mountain View. Other improvement plans must still be submitted in accordance with standard procedures. Standard notes for recycled water systems are shown in **Appendix G**, and standard details are shown in **Appendix H**.

## **Installation and Construction Inspection**

**Pipe Identification.** All new piping, whether for a new or retrofitted system, must be installed according to the approved plans and marked per these requirements to clearly distinguish between recycled water and potable water systems. The use of purple-colored pipe with continuous wording "RECYCLED WATER—DO NOT DRINK" printed on opposite sides of the pipe is the preferred method for identification of new buried recycled water piping (constant-pressure mainlines/intermittent-pressure laterals). Pipe must be laid with wording facing upwards.

As an alternative, all new buried recycled water lines (constant-pressure mainlines/intermittent-pressure laterals) must be identified by continuous lettering on 3" minimum width, purple marking tape with 1" black or white contrasting lettering bearing the continuous wording "RECYCLED WATER—DO NOT DRINK." This tape must run continuously on top of all piping (mainlines and laterals) and must be attached to piping with plastic tape banded around the marking tape and the pipe every 5' on center. Marking tape must extend to all valve boxes and/or vaults and exposed piping.

Existing buried piping which will be converted to recycled water use does not need to be marked unless the piping becomes exposed, such as during installation of new pipeline or maintenance of existing pipe. The exposed section must then be marked as indicated above for new piping.

All above-grade recycled water pipelines, whether new or existing, must be labeled with the words "RECYCLED WATER—DO NOT DRINK" and color-coded purple to differentiate recycled water pipelines from potable water pipelines. If purple identification tape is used to label the pipe and/or color-code the pipe, the tape must be adhesive, permanent and resistant to environmental conditions. Purple bands may also be painted around the circumference of the pipe at 10' intervals for color-coding. Purple PVC pipe is not an acceptable alternative for color-coding because the purple color will fade when exposed to sunlight.

Exposed (not buried) constant-pressure recycled water irrigation pipelines, such as copper or galvanized pipelines, that might be used in a structure, such as a parking garage to route recycled water, must be identified per UPC **Appendix J**, with the exception that the labeling on the piping must read "CAUTION: RECYCLED WATER—DO NOT DRINK." Intermittent-pressure lines inside a structure must be identified by affixing decals to the piping at 10' intervals and wherever the piping changes directions. These decals must be purple in color and must be imprinted in nominal 1" high, black, uppercase letters, with the words "RECYCLED WATER—DO NOT DRINK," and must be adhesive, permanent and resistant to environmental conditions.

**Reference:** *California Health and Safety Code 116815; AWWA Guidelines, Section 5.4.*

**Valve Boxes.** All remote control valves, isolation valves, pressure reducing valves and strainers for on-site recycled water systems must be installed below-grade in a valve box. Green, black or purple valve boxes and lids are acceptable. Valve boxes must have an advisory label or "nameplate" permanently molded into or affixed onto the lid with rivets, bolts, etc. Labels must be constructed of a purple, weatherproof material with the wording "RECYCLED WATER—DO NOT DRINK—NO TOMAR" permanently stamped or molded into the label.

**Quick-Coupling Valves.** New quick-coupling valves must be made specifically for recycled water use, and must be 3/4" or 1" nominal size and of brass construction with a maximum working pressure of 150 psi. The covers on all new quick-coupling valves must be permanently attached and made of purple rubber or vinyl with the words "RECYCLED WATER" imprinted on the locking cover. To prevent unauthorized use, the valve must only be operated by a special coupler key for opening and closing the valve. New quick-coupling valves must be installed approximately 12" from walks, curbs, header boards or paved areas. Quick-coupling valves used in the recycled water system must be installed in a valve box, where applicable, and a recycled water identification tag must be permanently attached to the quick-coupling valve or the inside of the box so that it is clearly visible when the box lid is removed.

Any wands, sprinkler heads, fittings or other attachments used in conjunction with the quick-coupling valves must be labeled with the words, "RECYCLED WATER—DO NOT DRINK." Attachments used in a recycled water system must not be used in a potable water system.

Quick-coupling valves installed on a potable water system in the vicinity of a recycled water irrigation system must be of a different type to prevent accidental cross-connection or contamination by accidentally interconnecting or interchanging attachments. Keys and attachments must not be interchangeable. Retrofitted potable water system quick-coupling valves must be modified to meet standards for new recycled water quick-coupling valves.

**Reference:** *Title 22 CCR, Section 60310(i); AWWA Guidelines, Section 5.5.*

**Other Valves and Devices.** New and existing isolation valves must be installed in a marked valve box with a recycled water identification tag on the valve operator or, if the valve operator is too deep to reach, at the top of the valve box extension.

New and existing remote-control valves, pressure-regulating valves and strainers must be installed in a marked valve box with a purple recycled water identification tag on the valve.

All water meters, pumps, pump control valves, air/vacuum relief valves and backflow prevention devices must be tagged with a purple recycled water identification tag.

At recycled water use sites where potable water is used, all potable water meters and above-grade water devices, such as backflow prevention devices and hose bibs, must be tagged or labeled with blue potable water identification tags or labels.

**Identification Tags and Stickers.** Recycled water identification tags and stickers must be weatherproof and durable, such as plastic or plastic coated, and have a purple background with permanent black lettering stating "RECYCLED WATER—DO NOT DRINK" and "AVISO, AGUA IMPURA—NO TOMAR." Potable water identification tags and labels must have a blue background with "POTABLE WATER" and "AGUA PARA TOMAR" in permanent black lettering.

**Irrigation Controllers.** New recycled water system controllers must be automatic with multiple start/stop times for any 24-hour period and installed according to the approved plans and City codes. Recycled water system controllers must be identified by affixing a sticker or "nameplate" to the inside or outside of the controller cabinet, or to the inside or outside of the controller cabinet enclosure. Stickers or nameplates must be weatherproof, and must contain wording in English and Spanish indicating that the controller is for a recycled water system.

**Advisory Signs.** Advisory signs indicating the use of recycled water must be installed at all entrances to the customer's facility. The City may require additional signing on a case-by-case basis.

**Advisory signs must be placed where they can be easily seen.** To the extent necessary to advise passersby, signs must be posted at the property line near crosswalks, at driveway entrances, at outdoor eating areas, or as otherwise determined by the City. For streetscapes (parkways, frontage or back-up landscaping), place signs at street corners as appropriate to notify passerby. Signs must be placed no further than 1,000' apart. For medians, a sign is usually placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.

Signs must include the words "IRRIGATED WITH RECYCLED WATER—DO NOT DRINK—NO TOMAR." The City may also require the signs to include translations into other foreign languages if appropriate. The lettering on the signs must be a minimum of 1/2" in height and must be black or white on a purple-colored background (refer to Figure 6 in **Appendix H**). Where required for aesthetic or corporate identity purposes, alternate color-coding schemes may be adopted subject to the approval of the City. Consult the City for final approval of signs using alternate color-coding.

**Reference: Title 22 CCR, Section 60310(g).**

**Decorative Fountains, Ponds and Other Water Features.** Minimum requirements for water feature signs are as follows:

- Minimum wording: "This \_\_\_\_\_ [insert type of water feature here, such as Fountain, Pond, etc.] Uses Recycled Water—Do Not Drink—No Tomar."
- Minimum size: no less than 4" high by 8" wide.
- Must be permanently, legibly printed and posted in conspicuous places.
- Colors for lettering and background follow the same guidelines as for irrigation signs.

The City must be consulted for final approval of all signs, as well as the number of signs required per water feature and the sign placement.

**Reference:** *Title 22 CCR, Section 60310; AWWA Guidelines, Section 5.12.*

**Construction Inspection.** The City may conduct on-site inspections during the construction phase to ensure that materials, installation and procedures are in accordance with the approved plans, specifications and applicable regulations. Accordingly, the customer shall notify the City of the schedule for all phases of planning, construction and start-up so that inspections can be scheduled.

**Field Testing and Inspection.** All systems shall conform to the requirements of the UPC Sections 103.5.1 through 103.5.4.2 except for intermittent pressure piping. During the coverage test with recycled water, the irrigation system will be inspected for proper use of full, half and quarter sprinkler heads, proper atomizing, and irrigation spray on nonapproved use areas.

**Required Temporary Connection to Potable Water Service.** In order to prevent cross-connections, an irrigation system is usually not allowed to receive recycled water until its site has passed a required cross-connection test. During the cross-connection test, the irrigation system must be supplied with water from a jumper (temporary connection) to an on-site potable water system up to and during the cross-connection test. After passing this test, the jumper must be removed and the system connected to the recycled water meter. Jumpers providing water from the public recycled water system into the on-site recycled water system are prohibited at all times. Irrigation systems not needing a temporary potable water source are usually systems where there is no potable water at the site, such as some streetscapes and medians.

**Cross-Connection Test.** The City will conduct a cross-connection test (and the customer's site must pass this test) before connecting the customer's recycled water



irrigation system to the City's recycled water system at any use site where both recycled and potable water are present in separate piping systems. This test is necessary to ensure the absolute separation of the recycled and potable water systems. The customer must notify the City at least 48 hours prior to requesting the test so that members of the appropriate agency may be present. The cross-connection test will be done under the supervision of the City and performed by an AWWA-certified cross-connection control specialist. The Site Supervisor must be present at the test. The test must be conducted with potable water charging the irrigation system (see *Temporary Connection to Potable Water Service* above). A written report documenting the test results will be prepared by City, and copies will be provided to customer and Site Supervisor. Cross-connection test procedures are contained in **Appendix I**.

**Reference:** *Title 22 CCR, Section 60316.*

**Final Inspection.** A final inspection will be performed by the City or its designated representatives before the recycled water system is connected to ensure all requirements have been met. This inspection may be coordinated with the final cross-connection test. The City Inspector will check to see that the proper equipment was used and that all required tags, labels and signs are in place. This inspection shall precede the coverage test which will be performed with recycled water.

**Coverage Test.** The customer is responsible for preventing overspray, runoff and ponding from their recycled water irrigation systems—new or converted to recycled water. To ensure that any overspray, runoff or ponding is in accordance with the City's Rules and Regulations, the City will conduct an inspection of the on-site system. The coverage test will allow the inspector to determine if conditions exist which create runoff or windblown spray outside the approved use area, or ponding within the use area. Spray patterns will be checked to see they do not encroach upon public facilities such as drinking fountains, outside eating areas or areas outside the approved use area. A preliminary coverage test may be conducted during the cross-connection test. Whenever possible, the final coverage test will be conducted immediately following the final inspection and setting of the recycled water meter.

**Final Approval.** Final approval must be granted by the City before recycled water can be supplied to the site on an ongoing basis. Final approval will be granted when construction has been completed in accordance with approved plans and specifications, all cross-connection tests have been performed, a final on-site inspection has been conducted, a coverage test is conducted and all requirements have been met satisfactorily. During the lifetime of the recycled water system, the City will periodically inspect the recycled water system to ensure compliance with all applicable rules and regulations (see also *Annual Self-Inspection Report*, Page 16).

**Record Drawings.** The customer, or customer's contractor, must prepare record drawings to show the recycled water irrigation system as constructed. These drawings

must include all changes in the work constituting departures from the original contract drawings, including those involving both constant-pressure and intermittent-pressure lines and appurtenances. All conceptual or major design changes must be approved by the City before implementing the changes in the construction contract. The recycled water irrigation system record drawings must be submitted to the City within ninety (90) days of the site receiving recycled water.

### **3. OPERATION AND MAINTENANCE**

#### **General Customer Responsibilities**

**Permit Issuance.** Prior to receiving recycled water service, the customer will be issued a 120-day temporary Recycled Water Permit by the City after meeting the requirements established in Section 2—Design, Installation and Inspection. The customer must designate a representative who is responsible for attending the Site Supervisor Certification Training before the temporary permit expires. Once a Site Supervisor has attended the training, the City will issue the customer a final Recycled Water Permit.

**Site Supervisor Designation.** The customer must designate a representative to be the Site Supervisor of the recycled water use site. The Site Supervisor represents the owner, tenant or property manager as a liaison to the City. The Site Supervisor must have the authority to carry out any requirements of the City. It is recommended that the Site Supervisor be an employee who is permanently stationed at the use site. At a minimum, the Site Supervisor must make visits to the use site at least on a quarterly basis.

**Reference:** *AWWA Guidelines, Section 6.2.2. Title 17 CCR, Section 7586. (Discretionary)*

**Site Supervisor Training.** The designated Site Supervisor must attend a Site Supervisor Training Workshop, provided by South Bay Water Recycling, within the first 120 days of receiving recycled water service. Failure to attend the Site Supervisor Training Workshop may result in the termination of recycled water service. The workshop includes information to assist in the effective operation and management of a recycled water irrigation system. Site Supervisors will become certified following completion of one of the workshops. Workshops are offered periodically throughout the year. A schedule can be obtained from the South Bay Water Recycling web site, <http://www.sanjoseca.gov/sbwr/sitesupervisors.htm>.

**Changing the Site Supervisor.** The customer must notify the City immediately of any change in personnel for the Site Supervisor position. Upon a change in personnel, the new Site Supervisor must attend a Site Supervisor Training Workshop within 120 days of the position change. Failure to attend the Site Supervisor Training Workshop may result in the termination of recycled water service.

#### **Site Supervisor Responsibilities**

##### **The Site Supervisor:**

- Is responsible for the recycled water system at the site.

- Is responsible for the operation, maintenance and prevention of potential violations of the recycled water system.
- Must ensure that there are no cross-connections made between the potable and the recycled water systems.
- Must be present at all cross-connection tests.
- Must inform the City of all failures, violations and emergencies that occur involving the recycled or potable water systems.
- Is expected to know the provisions of California Code of Regulations Title 17 and Title 22, relating to the safe use of recycled water and the maintenance of accurate records.
- Is expected to know the basic concepts of backflow and cross-connection prevention, system testing and related emergency procedures.
- Is responsible for training personnel at the use site on the proper uses of recycled water.
- Is responsible for applicable monitoring and reporting to City as required by Order No. 93-106.
- Must conduct an annual self-inspection of the use site and provide a written report to the City.

**Annual Self-inspection Report.** The customer must conduct an annual self-inspection and submit a written report to the City once each year. An inspection form will be provided to the Site Supervisor each year by the City (see **Appendix J** for a sample form). Items to be inspected include the following:

1. Is there evidence of recycled water runoff from the site? Show affected area on a sketch and estimate volume.
2. Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odors.
3. Is there evidence of recycled water ponding and/or evidence of mosquitoes breeding within the irrigation area due to ponded water?

4. Are warning signs, tags, stickers and aboveground pipe markings properly posted to inform the public that irrigation water is recycled water, which is not suitable for drinking?
5. Is there evidence of leaks or breaks in the irrigation system piping or tubing?
6. Is there evidence of broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers?
7. Has your designated Site Supervisor changed in the past year?
8. What corrective actions are being taken to correct any problems noted above?
9. Failure to submit an Annual Self-inspection Report may trigger an inspection by City staff. Customer is responsible for paying costs of City for conducting the inspection.

**Reference: Order 93-160, Self-Monitoring Program, Section III.2.d.**

**Unauthorized Discharge.** An unauthorized discharge is any amount of recycled water that leaves the designated use site. Discharge of this type of water is regulated by Santa Clara Valley Urban Runoff Pollution Prevention Program per the Regional Water Quality Control Board's National Pollutant Discharge Elimination System (NPDES) Stormwater Permit. The Site Supervisor must report to the City any unauthorized discharge of recycled water, at which time the City will specify if a written report is required. In the event of an unauthorized discharge, the Site Supervisor should make every effort to contain the recycled water and prevent it from entering the storm drain. *Contact the City of Mountain View's Utilities Services Manager at (650) 903-6239 for further directions and disposal instructions.*

**Maintenance.** The Site Supervisor is required to perform preventive maintenance to ensure that the recycled water system always remains in compliance with the City Rules and Regulations. As part of a preventive maintenance program, the Site Supervisor should:

- Perform regular inspections of the entire recycled water system, including sprinkler heads, drip irrigation system emitters, spray patterns, piping and valves, pumps, storage facilities, controllers, etc. Immediately repair all broken sprinkler heads, faulty spray patterns, leaking pipes or valves or any other noted condition that violates the recycled water use requirements.
- Check all recycled water identification signs, tags, stickers and above-grade pipe markings for their proper placement and legibility. Replace damaged, unreadable or missing signs, tags, stickers and pipe markings.

- Check spray patterns to eliminate ponding, runoff and wind blown spray conditions. If evidence of ponding or runoff is noted, affected areas should be indicated on a sketch and sprinkler heads should be adjusted to prevent further ponding or runoff. County Health regulations require that evidence of mosquitoes breeding within ponding should be noted and immediately eliminated.
- Establish and maintain an accurate recordkeeping system of all inspections, modifications and repair work.

**Personnel Training.** The Site Supervisor is responsible for training all personnel involved with recycled water, so they are familiar with the Rules and Regulations. At a minimum, the training program should convey the following:

- Recycled water, although highly treated, is nonpotable and must never be used for human consumption.
- Regulations prohibit ponding, windblown spray and runoff of recycle water.
- Working with nonpotable recycled water is safe if common sense is used and appropriate regulations are followed.
- State law prohibits a connection between the recycled water and the potable water systems.

The Site Supervisor must attend the South Bay Water Recycling Site Supervisor Training Workshop on an annual basis in order to maintain current knowledge and obtain recertification. Training programs provided by the Site Supervisor should also include instruction for personnel in proper procedures for reporting unauthorized discharges, identifying and correcting cross connections, and modifying the system in the event of an earthquake or other disaster.

**Permit Updates.** If the property is transferred to a new owner or tenant, or a new Site Supervisor or landscape company becomes responsible for system maintenance, the customer must notify the City within 30 days in order to receive a new permit.

### **System Operations**

**City Responsibilities.** The City provides high-quality recycled water at the appropriate pressure and quantity to local water customers.

**Customer Responsibilities.** The customer is responsible for maintaining and operating the on-site recycled water system downstream of the recycled water meter, which includes the following:

- Obtain all permits required for the operation and maintenance of the on-site recycled water system.
- Assign a Site Supervisor and ensure the Site Supervisor has obtained the required training.
- Apply recycled water in accordance with the City's Rules and Regulations.
- Maintain the on-site recycled water system, including signs, markings and tags in accordance with all City Rules and Regulations.
- Ensure all materials used during the repair and maintenance of the system are approved or recommended for recycled water use.
- Obtain prior authorization from the City before making any modifications to the approved recycled water system.
- Report all violations and emergencies to the appropriate City.
- Submit Annual Self-Inspection Report.

**Irrigation System Modifications.** The customer must receive authorization from the City before making any modifications to the approved recycled water irrigation system. This includes converting any piping used for recycled water back to potable water, such as switching from a recycled water system to a back-up potable water system. The City will notify the customer if any additional approval is required from other regulatory agencies.

**Emergency Procedures.** In case of earthquake, flood, fire, major freeze, nearby construction or other incident, which could cause damage to the recycled or potable water systems, the Site Supervisor must inspect the potable and recycled water systems for damage as soon as it is safe to do so. If either system appears damaged, both the domestic and recycled water systems should be shut off at their points of connection. The Site Supervisor must immediately contact the City for further instruction.

To prevent contamination, damage or a public health hazard, the customer may make emergency modifications or repairs without the prior approval of the City. As soon as possible after the modification (but within three days), the customer must notify the City of the emergency modifications and file a written report.

Customer should also refer to City's Backflow Prevention and Cross-Connection Control in City's Code of Ordinances. The Municipal Code Section 35.100.1 is available on-line at [www.mountainview.gov](http://www.mountainview.gov).

**Notification of Operating Problems.** In the event of a break in the system, low pressure, low flow or poor water quality, the customer should notify the City immediately.

**Dual-Plumbed Regulations.** If recycled water is used inside a building, all dual-plumbed regulations apply.

**Visual Inspection and Cross-Connection Review.** A visual inspection and thorough cross-connection review of the recycled water system should be conducted annually by the Site Supervisor.

**Dual-Plumbed Sites.** Dual plumbed sites are sites where the recycled water is used within a building in conjunction with a potable water system. **According to DPH regulations, at dual-plumbed use sites, City staff is responsible for notification of a cross-connection test every four years, unless visual inspections indicate a need for more frequent testing.** This test must be performed by an AWWA-certified cross-connection specialist. The Site Supervisor must be present at the test. A sample Test Notification Form is located in **Appendix K**.

**Impoundments.** Recycled water can be used for a variety of impoundments, including golf course ponds, decorative fountains, stream flow augmentation and other water-based recreational activities. The biggest consideration when managing water features, whether potable or recycled, is the potential for algae growth. The customer should develop a maintenance program, including adequate aeration, circulation and chlorine application, to help prevent the growth of algae. Contact the City for further information regarding impoundment maintenance.

### **Cross-Connections**

**Definition.** A cross-connection is any physical connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved for human consumption. This includes direct piping between the two systems, regardless of the presence of valves, backflow prevention devices or other appurtenances.

**Notification of a Cross-Connection.** The Site Supervisor must immediately notify the City of any failure of backflow device or plumbing system or cross-connections between the recycled water and potable water system, whether or not he/she believes a violation has occurred. The Site Supervisor must also notify the City of any violation that might occur because of any action the customer's personnel might take during the operation of



the recycled water or potable water systems. If there are any doubts whether a violation has occurred, the Site Supervisor must report each occurrence to the City, so a decision can be made as to the need for further action.

**Cross-Connection Tests.** Once every four years, the customer must have a cross-connection test performed by an AWWA-certified cross-connection control specialist to verify that there is not a cross-connection between the recycled water and potable water systems. The certified cross-connection control specialist must submit a written report documenting the test results to the Site Supervisor and the City. For specific individual uses, other regulations may apply (Food and Drug Administration, OSHA, etc.). Contact the City for further information regarding industrial uses.

**Scheduling Future Cross-Connection Tests.** Cross-connection tests of dual-plumbed systems must be performed every four years, unless visual inspections indicate a need for more frequent testing, by an AWWA-certified cross connection specialist, and the Site Supervisor must be in attendance during the test. These tests must be performed according to the procedure listed in **Appendix I—Cross Connection Control Test Procedure for On-site Recycled Water Systems.**

**Emergency Cross-Connection Response Plan.** In the event that a cross-connection is suspected or occurs, the following emergency cross connection response plan must be implemented immediately:

1. **The customer must notify the City by telephone (650) 903-6329 immediately.** This notification must be followed by a written notice within 24 hours that includes an explanation of the nature of the cross-connection, date and time discovered, and the contact information of the person reporting the cross-connection.
2. The City will notify the Santa Clara County Public Health—Environmental Health Division of the reported cross-connection.
3. The customer must immediately shut down the recycled water supply to the facility.
4. The customer must keep the potable system pressurized and post "Do Not Drink" signs at all potable water fixtures and outlets.
5. The customer must provide bottled water for employees until the potable water system is deemed safe to drink.
6. The customer must follow the procedures outlined by the Santa Clara County Public Health—Environmental Health Division, DPH and the City.

After final approval has been obtained from Santa Clara County Public Health—Environmental Health Division, the City will bring the recycled water system back into service and inform the customer to remove the "Do Not Drink" signs from all potable water fixtures and outlets.

**Contamination of Potable Water.** If, due to a cross-connection on the customer's premises, contamination of the potable water system is suspected or known, the customer must immediately notify the City. The customer must immediately invoke the "Emergency Cross-Connection Response Plan" described above.

## **APPENDIX A—Definitions**

Whenever the following terms (or pronouns used in their place) occur in this document, their intent and meaning shall be interpreted as follows:

**Air Gap.** A physical separation between the free-flowing discharge end of a water supply pipeline and an open or nonpressure receiving vessel. An approved air gap must be at least twice the diameter of the water supply pipe measured vertically above the overflow rim of the vessel, and in no case less than 1".

**Approved Use.** An application of recycled water in a manner, and for a purpose, designated in a Recycled Water Use Permit issued by the City and in compliance with all applicable Regulatory Agency requirements.

**Approved Use Area.** A site with well-defined boundaries designated on the approved Site Drawings to receive recycled water for an approved use and acknowledged by all applicable Regulatory Agencies.

**Cross-Connection.** Any physical connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved for human consumption. This includes direct piping between the two systems, regardless of the presence of valves, backflow prevention devices or other appurtenances.

**Customer.** Any person, persons or firm, including any public utility, municipality or other public body or institution issued a Recycled Water Use Permit by the City. The customer may be the owner, tenant or property manager, as appropriate.

**Inspector.** Any person authorized by the City, the local health agencies or other Regulatory Agencies to perform inspections on or off the customer's site before construction, during construction, after construction and during operation.

**Intermittently Pressurized Line.** Also known as a "lateral," it is the pipe section(s) between the control valve and the sprinkler head or drip emitters.

**Landscape Impoundment.** A body of recycled water used for aesthetic enjoyment or which otherwise serves a function not intended to include public contact.

**Lateral.** See **Intermittently Pressurized Line** above.

**Nonpotable Recycled Water.** Water that meets California Administration Code Title 22, Division 4 of the Environmental Health Water Reclamation Criteria and is

approved for purposes other than human consumption. For the purpose of these Rules and Regulations, "recycled water" refers to "nonpotable recycled water."

**Off-site.** Designates or relates to recycled water facilities upstream of and including the water meter.

**On-site.** Designates or relates to facilities owned and operated by a customer.

**Overspray.** The spray of recycled water outside the approved irrigation area.

**Operations Personnel.** Any employee of a customer, whether permanent or temporary, or any contracted worker whose regular or assigned work involves the supervision, operation or maintenance of equipment on any portion of on-site facilities using recycled water.

**Operator.** Any person, persons or firm who by entering into agreement with a customer is responsible for operating on-site facilities.

**Owner.** Any holder of legal title, contract purchaser or lessee under a lease with an unexpired term of more than one (1) year for property for which recycled water service has been requested or established.

**Point of Connection.** The point where the customer's system ties to the City's system, usually at the water meter.

**Ponding.** Retention of recycled water on the surface of the ground or other natural or manmade surface for a period following the cessation of an approved recycled water use activity.

**Potable Water.** Water that is authorized for human consumption according to the latest edition of the California Safe-Drinking Water Act or other applicable standards.

**Public.** Any person or persons, other than the site owner or employees, who may come in contact with facilities and/or areas where recycled water is approved for use.

**Rate and Fee Schedule.** The schedule of all rates, charges, fees and assessments to be made concerning the use of recycled water served by the City.

**Recycled Water.** See **Nonpotable Recycled Water** above.

**Recycled Water Use Permit.** A permit issued by the City to the customer which outlines monitoring, self-inspection, reporting and site-specific requirements.

**Reduced Pressure Principal Backflow Prevention Device.** A type of backflow prevention device, usually installed near a water meter, which prevents backflow by a combination of double-check valves and a pressure-differential-relief valve with a resilient-seated shutoff valve on each end of the device.

**Regulatory Agencies.** Those public agencies legally constituted to protect the public health and water quality, such as the State Department of Public Health (DPH), the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB) and the County Public Health Department.

**Restrained Joint.** Mechanically restrained. Solvent-welded for PVC joints 4" diameter and smaller.

**Runoff.** Recycled water which drains outside the approved irrigation area.

**Service.** The furnishing of recycled water to a customer through a metered connection to the on-site facilities.

**Site Supervisor.** The responsible person designated by the customer to be a liaison with the City. This person must have the authority to carry out any requirements of the City, must be responsible for the operation and maintenance of the recycled water system, and must prevent potential violations.

**Standard Pipe Length.** A section of pipe 18' to 20' in length that has no joints.

**State of California Department of Public Health.** Shall be the State of California Department of Public Health, Drinking Water Field Operations Branch—San Francisco District.

**Unauthorized Discharge.** Any release of recycled water that violates the Rules and Regulations of the City or applicable Federal, State or local statutes, regulations, ordinances, contracts or other requirements.

**Violation.** Noncompliance with any condition or conditions of the Recycled Water Use Permit by any person, action or occurrence, whether willfully or by accident.

**Water Retailer.** The local purveyor of recycled water for the specified service area (public or private); in this case, the City of Mountain View.

**Windblown Spray.** Dispersed, airborne particles of recycled water that can be transmitted through the air to locations other than those approved for the direct application of recycled water.

**Reference:** *AWWA California-Nevada Section, Guidelines for Distribution of Nonpotable Water.*

## **APPENDIX B—Governing Agencies**

### City of Mountain View:

Steve Haren  
Supervisor  
Phone: (650) 903-6087  
Fax: (650) 962-8079  
E-mail: *steve.haren@mountainview.gov*

### State of California Department of Public Health:

Jeff Stone, Chief  
California Department of Public Health—Recycled Water Unit  
1180 Eugenia Place, Suite 200  
Carpinteria, CA 93013  
Phone: (805) 566-9767  
Fax: (805) 745-8196  
E-mail: *jeffrey.stone@cdph.ca.gov*

### Regional Water Quality Control Board:

Blair Allen  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
Phone: (510) 622-2305  
Fax: (510) 622-2501  
E-mail: *ballen@waterboards.ca.gov*

## **APPENDIX C—Applicable Regulations and Guidelines**

1. **California Code of Regulations (CCR), Title 22, Division 4, Chapter 3, "Water Recycling Criteria"**—These regulations are written by the State DPH and specify the approved uses and use area requirements, such as hose bib restrictions, prohibition of irrigation near wells, etc. The regulations govern both the City's distribution system as well as the customer's on-site system.
2. **California Code of Regulations (CCR), Title 17, "Drinking Water Supply—Backflow Prevention"**—Title 17 specifies requirements intended to protect the public drinking water supply from contamination. Some requirements specified in Title 17 include backflow prevention devices, designation of a Customer Site Supervisor and cross-connection testing requirements.
3. **American Water Works Association (AWWA), California-Nevada Section, Guidelines For Distribution of Nonpotable Water**—This document provides recommended guidelines for planning, designing, constructing and operating nonpotable water systems, including recycled water systems. The guidelines themselves are not regulations but many agencies have adopted them as general requirements. The document covers both installations of the City distribution systems and on-site use systems.
4. **International Association of Plumbing and Mechanical Officials (IAPMO) Uniform Plumbing Code (UPC), Appendix J**—Appendix J of the Uniform Plumbing Code sets forth requirements when recycled water is used within buildings in a dual-plumbed system for nonpotable domestic uses, such as toilet and urinal flushing. This section of the UPC does not apply to irrigation sites where the recycled water system is located outside buildings or industrial sites where the recycled water is used for nondomestic industrial purposes. In addition, the pipe separation regulations indicated in this document are different than and take precedence over the Appendix J requirements. Appendix J only serves as a reference.
5. **Regional Water Quality Control Board**—The San Francisco Bay Regional Water Quality Control Board (RWQCB) is the agency responsible for preserving the quality of California's water resources. The RWQCB is responsible for issuing National Pollutant Discharge Elimination System (NPDES) permits, which contains regulations concerning discharge of water into San Francisco Bay.
6. **Santa Clara Valley Urban Runoff Program**—The Santa Clara Valley Urban Runoff Program is an association of 13 cities and towns, the County of Santa Clara and the Santa Clara Valley Water District that share a common National Pollutant Discharge Elimination System (NPDES) permit to discharge storm water to South



San Francisco Bay. They are responsible for enforcing the NPDES permit by preventing the discharge of nonstormwater into the storm drain systems.

7. **State of California Department of Public Health, Drinking Water Field Operations Branch, Santa Clara District**—The State Department of Public Health Drinking Water Field Operations Branch (CDPH) is the agency responsible for protecting and promoting the safety of California's drinking water. CDPH is responsible for developing the criteria and regulations for recycled water use, evaluating and approving recycled water systems, and for making recommendations to the RWQCB regarding the public health implications of recycled water use.
8. **City of Mountain View Code of Ordinances**—Various City of Mountain View Ordinances apply to the use of recycled water, as described specifically in Chapter 35, Water, Sewage and other Municipal Services. Applicable sections of Chapter 35 include, but are not limited to, Backflow Prevention and Cross-Connection Control, and Recycled Water for Irrigation. The City is responsible for adopting and enforcing ordinances for the protection of public health and the municipal water supply, as well as requiring the use of recycled water to help supplement the overall water supply.
9. **City of Mountain View Water Reuse Rules and Regulations**—The Rules and Regulations described herein are to be followed by all recycled water users and on-site supervisors. The City is responsible for updating the Rules and Regulations as required by applicable State law and regulations.

## **APPENDIX D—Specific Procedures for Obtaining Recycled Water Service**

1. Customer is informed of recycled water requirement by City staff. (City Municipal Code Chapter 35, Article V. Recycled Water for Irrigation.)
2. Customer obtains copy of City's Water Reuse Rules and Regulations.
3. Customer submits form: "Application and Permit for Recycled Water Service," Appendix E.
4. City prepares and provides close-out checklist and establishes customer site number.
5. Customer develops On-site Recycled Water Service Plans and Specifications and submits to City's Public Works Land Development Section.
6. City reviews these plans for conformance with applicable standards.
7. Customer notifies City at applicable stages through construction for purposes of inspection, including cross-connection, signage, piping layouts and separation, metering, backflow prevention and other applicable items.
8. City Inspectors inspect system during and after construction to determine compliance with Rules and Regulations.
9. Customer requests cross-connection test to be performed with customer's Site Supervisor along with irrigation contractor and landscaper. City performs cross-connection test pursuant to Appendix I.
10. City prepares a written cross-connection test report and provides copies to the customer and the customer's Site Supervisor.
11. City issues customer a 120-day temporary recycled water use permit for site. Permit will become permanent pending completion of Site Supervisor Training Workshop. The site owner, tenant and/or landscaper must attend a Site Supervisor workshop within 120 days of the site being connected to the recycled water system.
12. Customer and/or City coordinate meter installation. City staff to confirm compliance with Rules and Regulations to ensure signage remains.
13. City updates checklist with meter size, meter number and installation date.

14. For irrigation systems, City will conduct a coverage test on-site to ensure that the installed irrigation system does not spray recycled water on nonapproved use areas or cause runoff or ponding.
15. City updates checklist and submits a completed copy of the closeout checklist to customer.

## **APPENDIX E—Application and Permit for Recycled Water Service**

Today's Date: \_\_\_\_\_  
Tract No./APN: \_\_\_\_\_  
Facility Name: \_\_\_\_\_  
Location or Brief Legal Description: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Type of Development: \_\_\_\_\_  
Expected Date to Commence Recycled Water Service (Month/Year): \_\_\_\_\_

Owner: _____	Site Supervisor: _____
Address: _____	Address: _____
City: _____	City: _____
State: _____ Zip: _____	State: _____ Zip: _____
Phone: (    ) _____	Phone: (    ) _____
Contact: _____	24-Hour Phone: (    ) _____
Alternate: _____	24-Hour Phone: (    ) _____

### **Estimated Water Requirements:**

	<u>Acres</u>	<u>Average (AF/YR)</u>	<u>Peak Demand (GPM)</u>
Landscape Irrigation:	_____	_____	_____
Park:	_____	_____	_____
Open Space:	_____	_____	_____
School:	_____	_____	_____
Industrial Use:	_____	_____	_____
Athletic Field:	_____	_____	_____

### **Brief description of use(s):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### **Brief description of customer's proposed Site Supervisor's current responsibilities and familiarity with the future recycled water system:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This is a: ☐ new ☐ retrofitted system.

For retrofitted systems:

City Water Account No.: \_\_\_\_\_

On-site pumping ☐ is ☐ is not required.

Is the potable system designed to operate as back-up? ☐ yes ☐ no

Plans, Specifications and Supporting Documents

For both new and retrofitted systems, plans, specifications and any necessary supporting documents must be submitted with this application for service. The plans, specifications and supporting documents must be sufficient to demonstrate that the facility will comply with the "Recycled Water Rules and Regulations."

I UNDERSTAND AND AGREE TO ALL CONDITIONS FOR RECYCLED WATER SERVICE AS SET FORTH IN CITY'S WATER REUSE RULES AND REGULATIONS AND MUNICIPAL CODE AND HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE INFORMATION PROVIDED IN THIS APPLICATION AND IN ANY ATTACHMENTS IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE. I ALSO CERTIFY THAT I HAVE READ AND AGREE TO ABIDE BY ALL CONDITIONS SPECIFIED IN CITY'S RECYCLED WATER PROGRAM WHICH INCLUDE CONDITIONS SET FORTH IN THE RWQCB's ORDER NO. 93-160.

OWNER/USER: \_\_\_\_\_ TITLE: \_\_\_\_\_  
SIGNATURE

DATE: \_\_\_\_\_

**For City Use Only**

Date	Action	Completed by
	Application and Fees Received	
	Plan Check Completed	
	Construction Inspection Completed	
	Final Cross-connection Test	
	Meter Set	
	Coverage Test	
	Permit Issued (see below)	
	Site Supervisor Training	
	Record Drawings Received	

When signed by an authorized representative of the City, this application shall serve as a Recycled Water Use Permit and Water Service Agreement between the applicant and the City. Issuance of this permit requires applicant to comply with all requirements of the City and this permit, including, but not limited to, the attached documents.

*By accepting this permit, applicant consents to allowing the Regional Water Quality Control Board or its authorized representative in accordance with California Water Code Section 13267(c):*

- a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under conditions of the Order (93-160).*
- b. Access to and copy of any records that must be kept under the conditions of the Order.*
- c. Inspection of any facility, equipment (including monitoring and control equipment), practices or operations regulated or required under the Order.*
- d. To photograph, sample and monitor for the purpose of assuring compliance with the Order.*

Permit Application Approved: \_\_\_\_\_  
Signature Date

Documents Attached:

- Mountain View Water Reuse Rules and Regulations.
- Mountain View Municipal Code Article II, Division 4. Backflow Prevention and Cross-Connection Control, and Article V, Recycled Water for Irrigation.
- Regional Board Order 93-160.

## **APPENDIX F—Design Review Checklist**

Although the plan review conducted by the City may include checking for compliance with any existing regulations or guidelines, the following summary is provided to give the designer of a recycled water system a general idea of the major items which will be checked during plan review. The summary is compiled as a checklist so that it can easily be referenced by the plan designer. Compliance with every item on the checklist does not guarantee that the plans will be approved without comment since regulations and policies may change and some sites may require special provisions. In addition, even though the City performs a plan review, the customer is still responsible for meeting all applicable requirements even if those requirements are not shown on the approved plans. Please note that the plan requirements may be slightly different for new facilities than for existing facilities converting to recycled water use.

- ☐ Do plans include a site/piping plan and details of connection points as indicated under **Information Required for Plans**?
- ☐ Are all items listed under **Information Required for Plans** shown on the site/piping and detail plans?
- ☐ Is the use area shown on the site an approved use area?
- ☐ Is the total recycled water irrigation area included to the nearest 100 square feet?
- ☐ At new facilities, are all on-site recycled water pipelines located 10' horizontally from potable water pipelines where possible (minimum of 4' horizontal separation allowed if special construction details are incorporated)?
- ☐ At new facilities, where recycled and potable water lines cross or 10' horizontal separation is not maintained, are the pressurized recycled water pipelines located at least 1' below the potable water lines?
- ☐ At existing facilities converting to recycled water use, does all new piping meet the potable/recycled water pipeline separation criteria indicated above?
- ☐ Do the plans indicate that the recycled water and potable water systems are completely separated and there is no common trenching?
- ☐ At existing facilities converting to recycled water use, are all locations, where future recycled water piping must be separated from the potable water piping, clearly indicated on the plans?

- ☐ Are the proper backflow prevention devices shown in the proper location for protection of the public potable water system? Reduced pressure (RP) principal backflow prevention assemblies should be shown located as close as possible to all potable water meters and at least 12" above grade.
- ☐ If the on-site recycled water system is interconnected with industrial process piping, or a nonpotable drinking water source (such as an irrigation water storage pond), is the proper backflow protection device shown in the proper location for protection of the public recycled water distribution system? In such cases, an RP device is usually required at the recycled water meter at least 12" above grade.
- ☐ Are the proper backflow prevention devices shown in the proper locations for protection of on-site potable water supply per standard UPC and Title 17 requirements? Though not specifically related to recycled water, these devices should be shown on the plans. Backflow prevention devices are required at nonair gap points of connection to ponds, wading pools, swimming pools, fountains, etc., where the impoundment is supplied by the potable water on-site piping. Usually atmospheric vacuum breakers located near the point of connection are adequate, unless there is valving downstream of the protection device, in which case pressure vacuum breakers are required.
- ☐ If there are wells located on-site or near the use site, are the wells separated from all recycled water irrigation use areas by at least 50' and from all recycled water impoundments by at least 100'?
- ☐ If plans are used for construction, do plans show all necessary details to properly construct the system?
- ☐ Do plans identify that materials are appropriate for recycled water use? (For example, purple pipe, proper signing and tagging, etc).
- ☐ Do plans identify works requiring inspection by the City representatives?
- ☐ Do plans include a detail for air gap if a back-up source is used?
- ☐ Do plans specify no hose bibs on the recycled water system?



## **APPENDIX G—Standard Notes for On-site Recycled Water Irrigation Systems**

1. Prior to receiving recycled water, the site must be permitted by the City. A permit will be granted after:
  - Inspection by the City has been completed showing conformance with City rules and regulations.
  - A final on-site inspection has been conducted to confirm that all requirements have been met.
  - Site has passed required cross-connection test performed by a certified AWWA cross-connection specialist (if no potable water lines cross the site, then required cross-connection test is waived).
  - A coverage test has been conducted to confirm that all requirements have been met.
  - The owner's or tenant's representative must also complete a Site Supervisor training class offered by the City in order to receive a permanent permit. In the interim between connection and training, the tenant or owner will receive a temporary recycled water permit. Contact *Utilities Services Manager* at (650) 903-6239 for further information.
2. All work shall conform to existing regulations, including, but not limited to:
  - Mountain View Water Reuse Rules and Regulations.
  - Department of Public Health Regulations.
3. Changes made to the approved irrigation plans shall be submitted to the City for review and approval at least two weeks prior to start of construction.
4. At least two days prior to start of construction, contractor and the City Inspector shall hold a preconstruction meeting. To schedule a meeting, contact *Utilities Services Manager* at (650) 903-6239 for further information.
5. Notify the City Inspector a minimum of at least 24 hours before work begins. The City Inspector must inspect and/or verify:
  - Presence of proper backflow prevention at all potable points of connection.
  - New underground piping (labeling, clearances, burial depth, sleeving).

- Installation of signs, tags and controller decals.
  - Required temporary connection to potable water service; in most cases, the site irrigation system must be connected to a temporary source of potable water in order to conduct required cross-connection test.
  - Site passed required cross-connection test performed by a certified AWWA cross-connection specialist (if applicable).
  - New meter installation—prior to receiving recycled water, the City Inspector must inspect the disconnection of the site's irrigation system from the temporary potable water supply and then inspect the connection of the system to the recycled water meter.
6. No cross-connections between the potable and recycled water systems are permitted.
  7. All on-site buried recycled water piping shall be identified by one of the following methods:
    - Using purple-colored PVC pipe with continuous wording: "CAUTION—RECYCLED WATER" printed on opposite sides of the pipe; pipe shall be laid with wording facing upwards.
    - Warning tape with a minimum width of 3" reading: "CAUTION—RECYCLED WATER" (in black or white lettering on purple background) shall run continuously on top of piping and shall be attached to piping with plastic tape banded around the warning tape and the pipe every 5' on center.
  8. PVC pipe—constant-pressure mainline piping 1.5" and smaller shall be Schedule 40; constant-pressure mainline piping 2" and larger shall be Class 315; intermittent-pressure lateral piping shall be Class 200 or Schedule 40. Copper pipe shall be Type "k."
  9. All on-site recycled water piping shall be buried to a minimum depth from finished grade to top of pipe (minimum cover) of:
    - Pressurized lines 3" and larger: 24".
    - Pressurized lines 2-1/2" and smaller: 18".
    - Intermittent-pressure lines: 12".

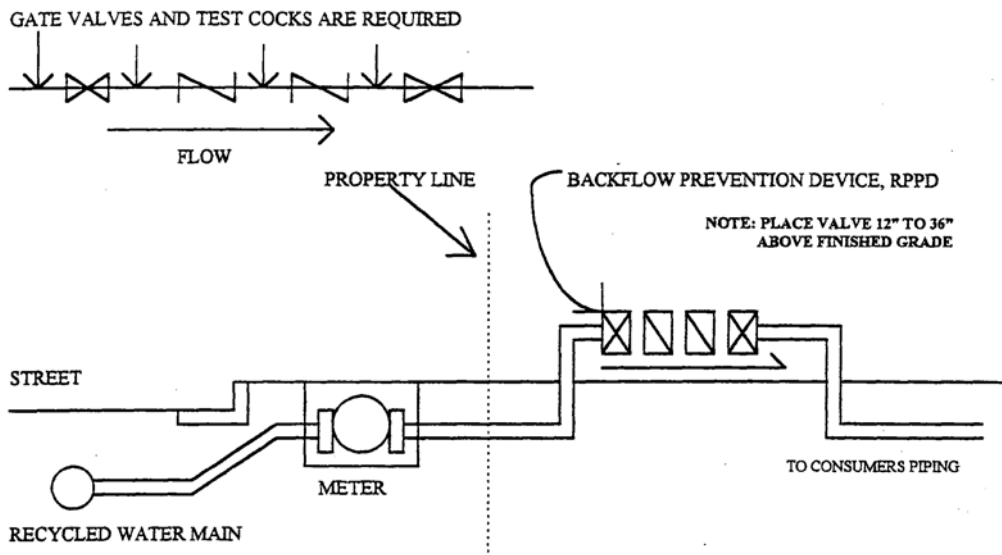
10. All recycled water piping other than PVC piping with solvent-welded joints shall be protected against movement with thrust blocks or restrained joints or other approved method per City details.
11. Maintain a 10' horizontal separation between buried pressurized recycled water irrigation piping and buried potable water piping unless otherwise noted. At pipe crossings, buried pressurized recycled water irrigation piping must be 12" below potable water lines. Pressurized recycled water pipelines are allowed over potable water pipelines with a minimum of 12" vertical separation if a full standard pipe length is centered over the crossing, or the recycled water pipeline is installed in a pipe sleeve which extends a minimum of 10' on either side of the potable water piping. Intermittently pressurized irrigation laterals may be located a minimum of 12" above potable water pipelines without sleeving.
12. All recycled water system remote-control valves, isolation valves, quick-coupling valves, strainers and pressure-regulating valves shall be installed below grade in valve boxes. Green-, black- or purple-colored boxes and lids are acceptable. Valve boxes shall have a warning label or nameplate permanently molded into, or attached onto, the lid with rivets, screws or bolts. Warning labels shall be per City standard details.
13. Recycled water quick-coupling valves shall have a purple cover and be identified per City standard details.
14. No hose bibs are allowed on the recycled water irrigation system. Any exterior hose bibs served with potable water must be labeled per City standard details.
15. All recycled water meters, devices and valves—e.g., isolation valves, irrigation controllers, remote control valves, pressure-regulating valves, quick-coupling valves, etc.—shall be tagged per City standard details.
16. Label all potable water meters and aboveground potable water pipes/devices (backflow preventers, hose bibs, etc.) with tags or labels reading: "POTABLE WATER" in black letters on blue background per City details.
17. Recycled water advisory signs conforming to the details and specifications on the City-approved irrigation plans shall be posted per locations shown on those irrigation plans.
18. Installation of direct injection systems on the recycled water irrigation system is not permitted.
19. No drinking fountains or eating areas are allowed in the approved recycled water use area unless adequately protected from overspray.

20. All recycled water meters will be set by the City after:
- The site's owner, developer or contractor has applied for recycled water service with the City, the water service agreement has been approved (if applicable), and all applicable fees have been paid.
  - The City Inspector must inspect the disconnection of the site's irrigation system from the temporary potable water supply and then inspect the connection of the system to the recycled water meter.
21. No overspray or runoff of recycled water is allowed on any nonapproved use area. Ponding of recycled water due to irrigation is not allowed in any area. Upon receiving recycled water, the on-site recycled water irrigation system must pass a coverage test conducted by the City Inspector.
22. Contractor shall submit as-built irrigation plans to the City within 90 days of site receiving recycled water.

## **APPENDIX H—Standard Details for On-site Recycled Water Systems**

- FIGURE 1    TYPICAL RECYCLED WATER BACKFLOW PREVENTION DEVICE  
                  INSTALLATION (REQUIRED FOR USES OTHER THAN IRRIGATION)
- FIGURE 2    SYSTEM SEPARATION REQUIREMENTS: PIPE SEPARATION
- FIGURE 3    SYSTEM SEPARATION REQUIREMENTS: COMMON TRENCH
- FIGURE 4    DIG-IN PROTECTION INSTALLATION
- FIGURE 5    SLEEVING OF RECYCLED WATER PIPING
- FIGURE 6    RECYCLED WATER SIGNS/TAGS
- FIGURE 7    OBSERVATIONS STATION MAP (EXAMPLE)

**FIGURE 1—TYPICAL RECYCLED WATER BACKFLOW PREVENTION DEVICE INSTALLATION (REQUIRED FOR USES OTHER THAN IRRIGATION)**

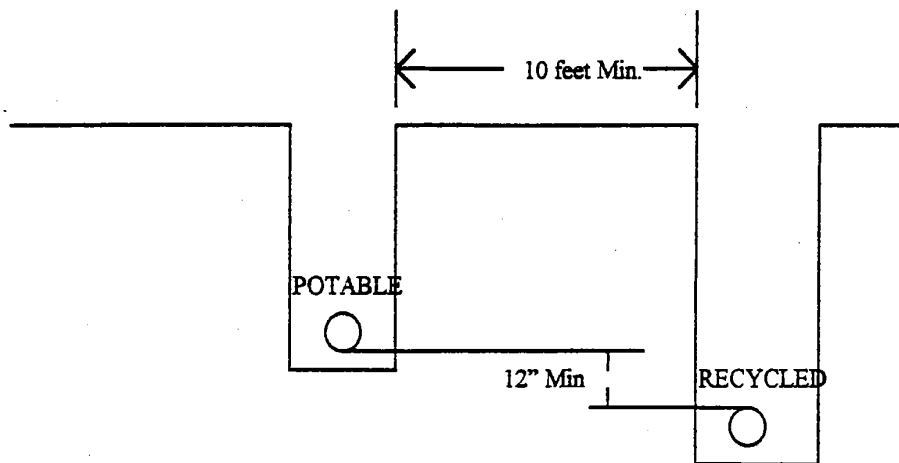


**NOTES:**

1. The device shall be approved by City and conform with American Water Works Association Specification C506, latest revision. Any deviation from the methods described above must receive approval prior to installation.
2. The device shall be installed on the property side of and adjacent to the meter.
3. The supply pipeline between the meter and the backflow prevention device must be exposed only for initial inspection purposes.
4. The device shall be installed in an easily accessible location; the bottom of the device shall be at least 12" to 36" above finished grade. The device must be installed in a horizontal position to the horizon.
5. Alternate locations will be evaluated for acceptability, if desired.
6. There shall not be any outlet, tee, tap or connection of any kind to or from the supply pipeline between the recycled water meter and the backflow protective device.
7. No bypasses of any kind or for any duration will be permitted without an equivalent backflow prevention assembly being installed in the line and without prior approval of the City.

8. Installation of a backflow device will make the piping downstream of the device (your piping) a "closed system." If the water expands (due to change in ambient temperature or heat), the water pressure in a closed system will increase. It is important that the piping be equipped with the proper pressure-relief valve, preferably on the hot water system.

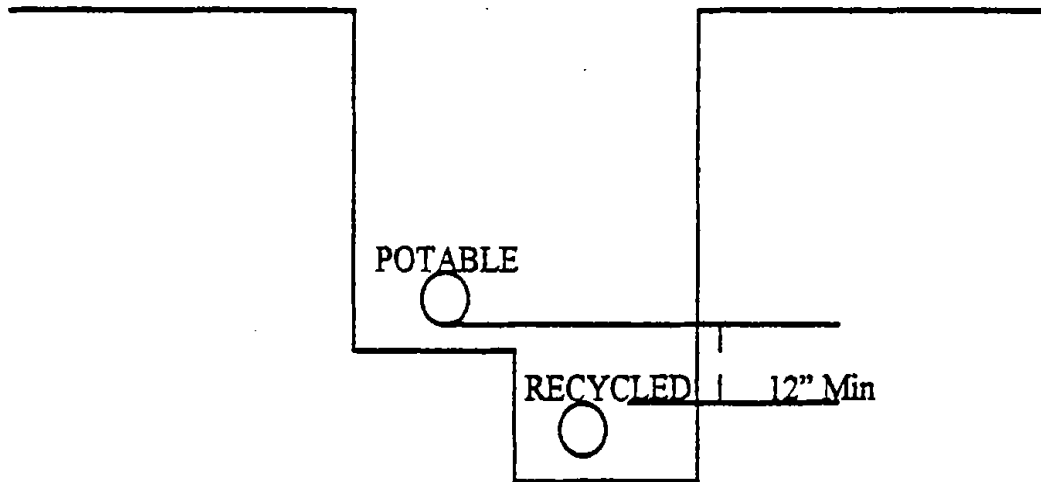
**FIGURE 2—SYSTEM SEPARATION REQUIREMENTS: PIPE SEPARATION**



Ten feet (10') of undisturbed soil must exist between recycled water and domestic water piping. Recycled water and domestic water piping are not to be installed in a common trench with less than the minimum separation. (See Figure 3 for exceptions to the "Basic Separation Rule.")

**FIGURE 3—SYSTEM SEPARATION REQUIREMENTS: COMMON TRENCH**

MUST BE APPROVED BY CITY

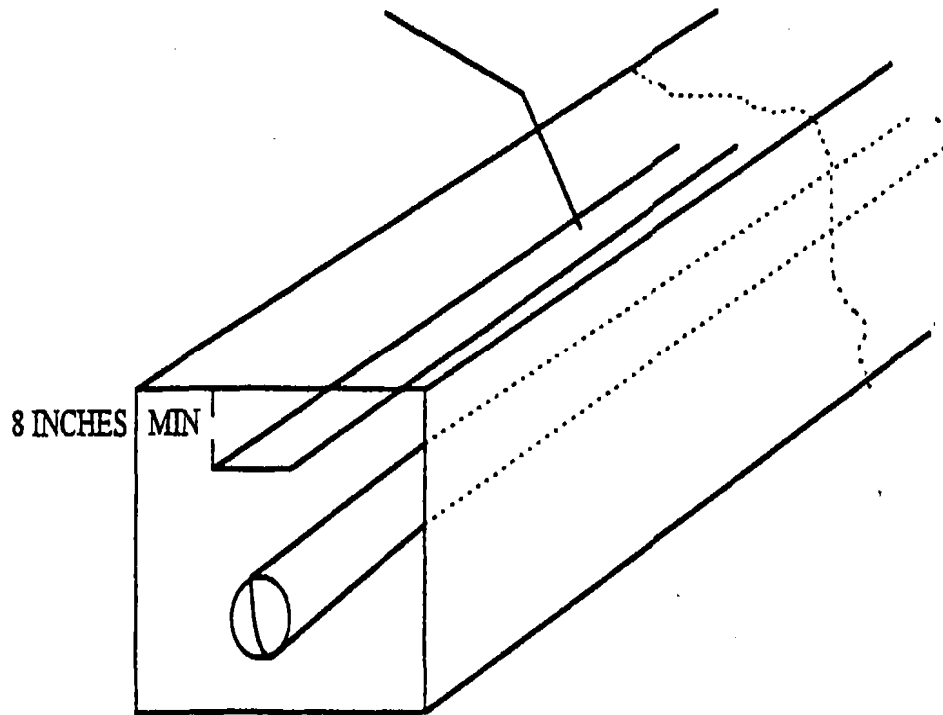


Recycled water and domestic water piping can be installed in a common trench only if there are no other alternatives available. The domestic water line shall be placed on a solid shelf excavated at one side of the common trench. The bottom of the domestic water line shall be a minimum of 12" above the top of the recycled water line. Additional corrosion protection should be considered on the domestic water line.



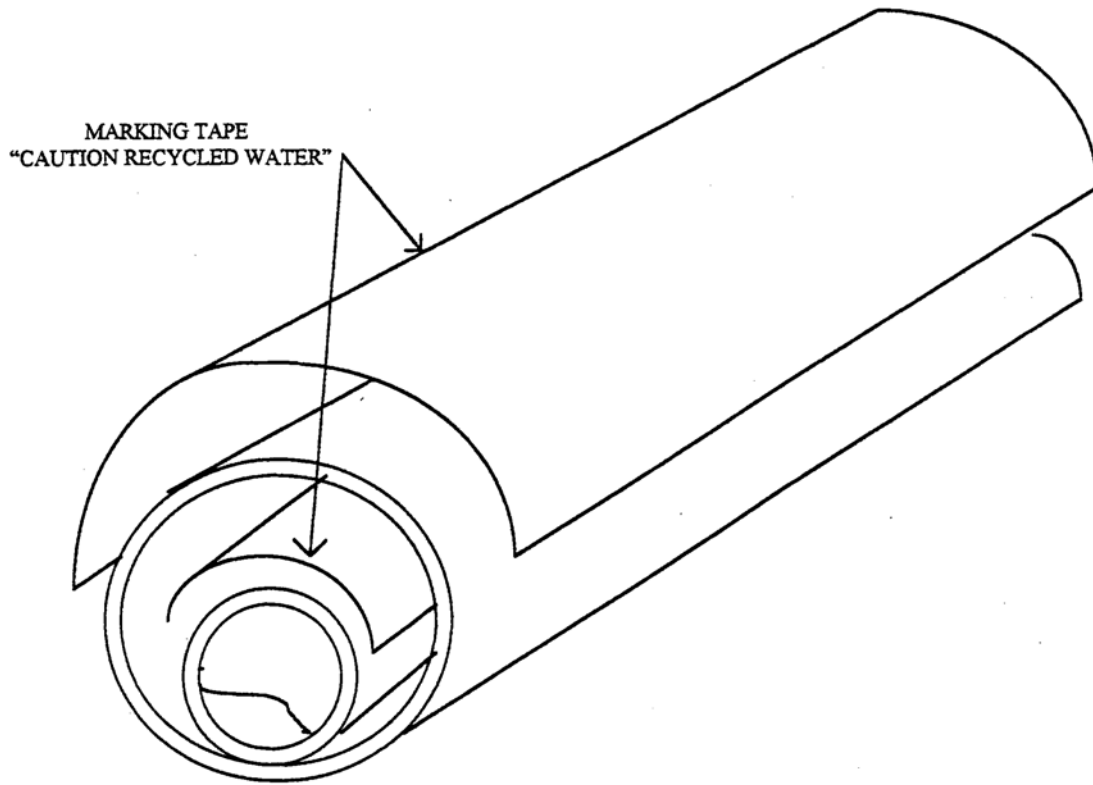
**FIGURE 4—DIG-IN PROTECTION INSTALLATION**

PURPLE TAPE WITH BLACK LETTERING



Where dig-in protection is specified, 6" tape shall be purple with black lettering—"CAUTION RECLAIMED WATER LINE BURIED BELOW—DO NOT DRINK." Dig-in protection tape shall be installed 8" below the surface. The tape shall be placed in the trench with the printed side up and be essentially parallel to the finished surface. The necessary precautions must be taken to ensure the tape is not pulled, distorted or otherwise misplaced in completing the trench.

**FIGURE 5—SLEEVING OF RECYCLED WATER PIPING**



The recycled water sleeve shall be ductile iron. Both pipe and sleeve shall be identified as recycled water piping.

**FIGURE 6—RECYCLED WATER SIGNS/TAGS**



The Recycled Water Sign to be posted at washdown hydrants, blowoff hydrants, blowoffs on strainers and other such facilities shall measure not less than 6" by 6". The sign shall have a purple background with 1/2" minimum white lettering which reads "RECYCLED WATER—DO NOT DRINK" "NO TOMAR AGUA," the circle/slash shall be red in color. The figurehead and cup shall be white.

## **RECLAIMED WATER VALVE IDENTIFICATION TAGS**

1. Identification tags shall be manufactured from polyurethane. Tags shall have an integral neck and reinforced attachment hole and will be capable of withstanding 180 pounds pull-out resistance.
2. The identification tags shall be purple (Pantone 512) and approximately 3" by 4" in size.
3. Identification tags shall be T. Christy Enterprises Model No. ID-Max-P2-RC006, or equal.



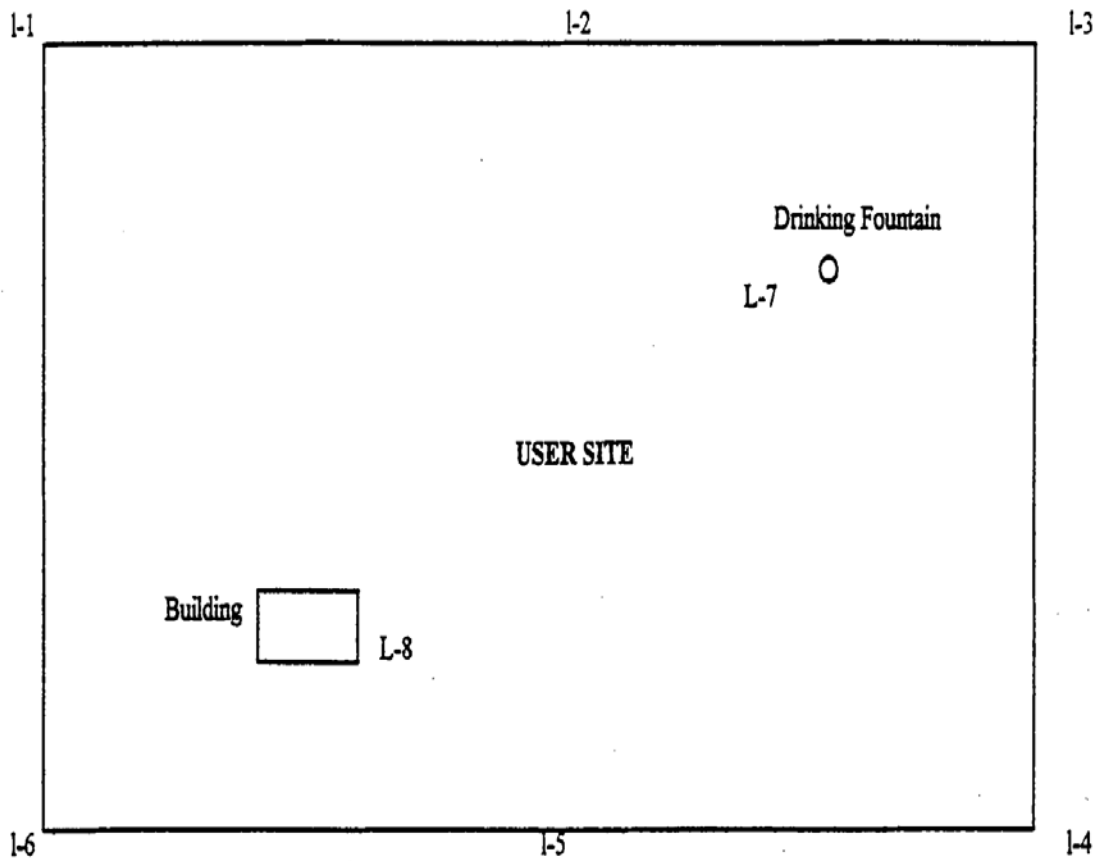
Front

Back

**FIGURE 7—OBSERVATIONS STATION MAP (EXAMPLE)**

Name of User: \_\_\_\_\_ Date: \_\_\_\_\_

Location: \_\_\_\_\_



I = Visual monitoring Stations

## **APPENDIX I—Cross-Connection Control Test Procedure for On-Site Recycled Water Systems**

The following method is used for conducting a cross-connection control test on all sites where both recycled water and potable water are intended to be used in separate piping systems. A certified AWWA cross-connection specialist must perform the test.

### **Cross-Connection Control Test—Part One:**

The potable water system shall be activated and pressurized. The recycled water irrigation system shall be shut down at its point of connection and depressurized—this is usually done by manually bleeding an irrigation control valve and/or quick-coupling valve that is located at the lowest point of elevation in the irrigation system.

1. The potable water system shall remain pressurized for a minimum period of time specified by the cross-connection specialist while the irrigation system is depressurized. The minimum period of time the recycled water irrigation system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable water and recycled water irrigation systems.
2. All recycled water irrigation control valves and quick-coupling valves, and any site features that are approved to be supplied with recycled water from the on-site irrigation system (such as decorative fountains) shall be tested and inspected for flow. If the recycled water system has been truly shut down at its point of connection, then continuous flow from any part of the recycled water system—irrigation system or decorative fountains, etc.—indicates a cross-connection.
3. All potable water fixtures (interior and exterior)—faucets, hose bibs, drinking fountains, toilets and urinals, supply lines to decorative fountains, etc.—shall be tested and inspected for flow. No flow from any potable water outlet indicates that it may be connected to the recycled water irrigation system.
4. If no cross-connections are discovered, proceed to the second part of the test. If any cross-connections are found, they must be disconnected, and the site must be retested by an AWWA cross-connection specialist per these procedures.

### **Cross-Connection Control Test—Part Two:**

1. The potable water system shall be shut down at its point of connection (usually the meter) and depressurized. In the case of a potable water system in a multi-story building, the potable water system pressure may be reduced by the amount

deemed necessary by the cross-connection specialist and monitored with a gauge installed at a low point of elevation in the potable water system.

2. The recycled water irrigation system shall then be activated and pressurized.
3. The recycled water irrigation system shall remain pressurized for a minimum period of time specified by the cross-connection control specialist while the potable water system is depressurized (or, in the case of a multi-story building potable water system, remains in a state of reduced pressure). The minimum period of time the potable water system is to remain depressurized shall be determined on a case-by-case basis.
4. All potable water fixtures (interior and exterior)—faucets, hose bibs, drinking fountains, toilets and urinals, supply lines to decorative fountains, etc.—shall be tested and inspected for flow. Some flow may occur from water breaking loose from an air lock in an overhead water line. The amount of flow to cause a concern is a judgment call by the cross-connection specialist. If the potable water system has been truly shut down at its point of connection, then continuous flow from any part of the potable water system (that is beyond the drainage generated by an air lock breaking free) indicates a cross-connection. In the case of a potable water system in a multi-story building, the testing of all fixtures may be used in combination with a pressure gauge (mentioned in No. 1 above), or the pressure gauge may be used instead of the testing of all fixtures. If the potable water system has been truly shut down at its point of connection, then an increase in the potable water system pressure viewed at the gauge over a period of time specified by the cross-connection specialist indicates a cross-connection.
5. All recycled water irrigation control valves and quick-coupling valves, and any other site features that are approved to be supplied with recycled water from the on-site irrigation system (such as supply lines to decorative fountains) shall be tested and inspected for flow. No flow from a recycled water irrigation control valve, quick-coupling valve or any other recycled water fixture indicates that it may be connected to the potable water system.
6. If no cross-connections are discovered, then the potable water system shall be repressurized. If any cross-connections are found, they must be disconnected and the site must be retested by an AWWA cross-connection specialist per these procedures.

The certified AWWA cross-connection specialist responsible for completing the above test must indicate the results on a City Water Recycling Cross-Connection Certification Form (call Steve Haren at (650) 903-6087 to obtain form) and return it to the City. This completed form may be faxed to the City at (650) 962-8079 or [steve.haren@mountainview.gov](mailto:steve.haren@mountainview.gov).

## **APPENDIX J—Annual Self-Inspection Report**

Site: \_\_\_\_\_ Date: \_\_\_\_\_

Inspected By: \_\_\_\_\_

Title: \_\_\_\_\_

1. Is there evidence of runoff of recycled water from the site? Show affected area on a sketch and estimate volume. \_\_\_\_\_
2. Is there an odor of wastewater origin at the irrigation site? If yes, indicate apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odors. \_\_\_\_\_
3. Is there evidence of ponding of recycled water, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water? \_\_\_\_\_
4. Are warning signs, tags, stickers and aboveground pipe markings properly posted to inform the public that irrigation water is recycled water, which is not suitable for drinking? \_\_\_\_\_
5. Is there evidence of leaks or breaks in the irrigation system piping or tubing? \_\_\_\_\_
6. Is there evidence of broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers? \_\_\_\_\_
7. What corrective actions are being taken to correct any problems noted above? \_\_\_\_\_

Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Return this form to    Steve Haren  
                                 Phone: (650) 903-6087  
                                 Fax: (650) 962-8079  
                                 E-mail: [steve.haren@mountainview.gov](mailto:steve.haren@mountainview.gov)





## ANNUAL SITE INSPECTION REPORT FOR RECYCLED WATER

**Site/Business Name:** \_\_\_\_\_

**Property Service Address:** \_\_\_\_\_

**Recycled Meter Account No.:** \_\_\_\_\_

**Recycled Meter No.:** \_\_\_\_\_

**Date Inspection Conducted:** \_\_\_\_\_

<input type="checkbox"/> Yes <input type="checkbox"/> No	1. Are advisory signs and tags in good condition and posted consistent with Department of Public Health (DPH) approved plans to inform public that water is recycled? If not, describe actions taken to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No	2. Is there evidence of recycled water runoff from the site? If yes, please estimate the volume and sketch affected area on the back of this sheet. Also, describe actions taken to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No	3. Is there an odor of wastewater origin within the irrigation site? If yes, describe apparent source, characterization, direction of travel, and any public use areas or off-site facilities affected by the odor. Describe actions to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No	4. Is there evidence of ponding of recycled water and/or evidence of mosquitoes breeding within the irrigation (and/or industrial/dual plumbed) area due to ponded water? If yes, describe actions taken to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No	5. Is there evidence of leaks or breaks in the irrigation (and/or industrial/dual-plumbed) system pipelines or tubing? If yes, describe actions taken to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No	6. Is there evidence of plugged, broken or otherwise faulty drip irrigation system emitters or spray irrigation sprinklers on the site? Describe actions taken to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No	7. In the past year or since the last annual site inspection report, have there been any modifications to the DPH-approved recycled or potable water systems? If so, describe the modifications and note if they were reviewed by the City of Mountain View:
<input type="checkbox"/> Yes <input type="checkbox"/> No	8. Do you use a conductivity meter to test the water?

**Additional Inspection Items 9 and 10 are for Dual-Plumbed Facilities:**

<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9. Are tamper evident valve seals intact and exposed piping for the recycled water system labeled? If not, describe actions taken to correct:
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. As an annual requirement, all dual-plumbed facilities must be visually inspected by a certified cross-connection specialist. Please provide the following information:

Inspector Name

Date Of Inspection

AWWA No.

**I certify that the information in this report, to the best of my knowledge, is correct and true.**

---

Certified Site Supervisor Signature

Date of Inspection

---

Print Name

---

Mailing Address

City

State

ZIP

---

Office Phone-Extension

Cell Phone

E-mail

---

---

---

Current Property Owner/Company Name

---

Address

City

State

ZIP

---

Office Phone-Extension

Cell Phone

E-mail

---

---

---

Current Facilities/Property Manager/Company Name

---

Address

City

State

ZIP

---

Office Phone-Extension

Cell Phone

E-mail

Please mail or fax completed report to the address below:

City of Mountain View—Public Services Division  
231 North Whisman Road  
Mountain View, CA 94043-3911  
Attention: Recycled Water Program  
Phone: (650) 903-6329  
Fax: (650) 962-8079

**APPENDIX K—Cross-Connection Test Notification**

***48-Hour Minimum Notice***

**Owner's Representative  
(Retrofit Contractor/Shutdown Coordinator)**

Name: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Pager/Mobile Phone: \_\_\_\_\_  
Date: \_\_\_\_\_

**ITEMS TO BE COMPLETED BY REPRESENTATIVE**

Site Name: \_\_\_\_\_  
Site Address: \_\_\_\_\_  
Proposed Test Date and Time: \_\_\_\_\_

Notices sent to:

<input type="checkbox"/> City _____ (Contact Name)	<input type="checkbox"/> Tenant _____ Name/Phone
<input type="checkbox"/> Owner _____ Name/Phone	<input type="checkbox"/> Inspector _____ Name/Phone
<input type="checkbox"/> Account Holder _____ Name	<input type="checkbox"/> On-Site Supervisor _____ Name

**ITEMS TO BE COMPLETED BY CITY**

Customer No.: \_\_\_\_\_

Notices sent to: ☐ \_\_\_\_\_ ☐ \_\_\_\_\_  
☐ \_\_\_\_\_ ☐ \_\_\_\_\_

**ITEMS TO BE COMPLETED BY CROSS-CONNECTION SPECIALIST**

☐ Cross-Connection Specialist  
Company Name: \_\_\_\_\_  
Specialist Name: \_\_\_\_\_  
Phone/Fax/Pager: \_\_\_\_\_  
☐ Specialist's information faxed to Owner's Representative  
☐ Fax information to City: Steve Haren at (650) 962-8079  
☐ E-mail: *steve.haren@mountainview.gov*



**RECYCLED WATER CROSS-CONNECTION TEST CERTIFICATION FORM**

**Site/Business Name:** \_\_\_\_\_

**Property Service Address:** \_\_\_\_\_

**Recycled Meter Account No.:** \_\_\_\_\_

**Recycled Meter No.:** \_\_\_\_\_

**Date Test Conducted:** \_\_\_\_\_

**Other Attendees at the Test:**

<b>Name/No.</b>	<b>Company</b>	<b>Phone No.</b>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I, \_\_\_\_\_, AWWA Cross-Connection Specialist \_\_\_\_\_, after  
(print name) (No.)  
carefully reviewing the system and conducting the test as per California UPC Appendix J,  
and City of Mountain View Rules and Regulations, find no indication of a cross-  
connection between the recycled water system and potable system at the above indicated  
location:

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Time:** \_\_\_\_\_

**Company:** City of Mountain View **Phone:** \_\_\_\_\_

**Address:** 231 North Whisman Road, Mountain View, CA 94043-3911

ND/8/PSD/771-03-18-10RR-E^